California Regional Water Quality Control Board San Diego Region

Total Maximum Daily Load (TMDL) for Chollas Creek Watershed

Draft Numeric Target August 3, 1999

Numeric Target

Clean Water Act Section 303(d)(1)(C) states that TMDLs "shall be established at a level necessary to implement the applicable water quality standards...." Numeric targets help to interpret the narrative water quality standard for toxicity and establish the linkage between attainment of the standards and the TMDL. The main goal of the TMDL is for the water in Chollas Creek to meet the narrative toxicity objective in the Basin Plan. Because the Basin Plan does not contain a numeric objective exists for toxicity, this TMDL is based on a numeric target for diazinon which is causing the toxicity and is expected to result in attainment of the narrative toxicity objective and the beneficial uses.

There are currently no water quality objectives in the basin plan for diazinon so the numeric target is based on the best documentation available at this time. The Department of Fish and Game (DFG) prepared a report titled "Hazard Assessment of the Insecticide Diazinon to Aquatic Organisms in the Sacramento-San Joaquin River System, 1994". This report contains a freshwater Water Quality Criterion (WQC) for protection of aquatic organisms from the insecticide diazinon. The numeric targets are listed in the table below and are adapted from the WQC for diazinon:

	Diazinon Concentration	Averaging Period	Frequency of Allowed Exceedance
Acute WQC	$0.08~\mu g/l$	One-hour average	Once every three years
Chronic WQC	0.04 µg/l	Four-day average	Once every three years

For the purpose of evaluating if the numeric target has been attained, the following provisions shall be applied:

- 1. If only one sample is collected during the time period associated with the numeric target (e.g., one-hour average or four-day average), the single measurement shall be used to determine attainment of the numeric target for the entire time period.
- 2. The one-hour average shall be the moving arithmetic mean of grab samples over the specified one-hour period.

3. The four-day average shall apply to flow weighted composite samples for the duration of a storm, or shall be the moving arithmetic mean of flow weighted 24-hour composite samples or grab samples.